Abstract

In the partial thermochemical vacuum treatment of metallic 5 workpieces (1), in particular in the carburization and case hardening of workpieces (1) of case-hardening steel in a carbon-containing atmosphere, surface regions (3, 4, 5, 6) to be treated and surface regions not to be treated abut one another. In order to restrict the surface treatment to

- 10 the cavities (2) of the workpieces (1) the external surface regions not to be treated are covered by reusable dismountable mould bodies (11) of a temperature-resistant material with at least one mould cavity (15). In this connection the mould body (11) consisting of a lower
- part (12) and an upper part (13) with openings (12b, 13b) encloses several workpieces (1) in such a way that no treatment takes place on the external surface regions of the workpieces (1). An electrically conducting mould body (11) is suitable in particular for a thermochemical
- 20 treatment under the action of a plasma. Graphite or CFC is used as material for the mould bodies (11). In such a mould body the workpieces can be subjected before the carburization to a heating procedure, as well after the carburization to procedures such as diffusion, gas
- 25 quenching and optionally further treatments such as deep cooling and/or annealing.

(Figure 1)